

STATE OF CALIFORNIA  
FISH AND GAME COMMISSION  
INITIAL STATEMENT OF REASONS FOR REGULATORY ACTION  
(Pre-publication of Notice Statement)

Amend Sections 163 and 164  
Title 14, California Code of Regulations  
Re: Harvest of Herring and Harvest of Herring Eggs

- I. Date of Initial Statement of Reasons: May 1, 2008
- II. Dates and Locations of Scheduled Hearings:
  - (a) Notice Hearing: Date: June 27, 2008  
Location: Upland, CA
  - (b) Discussion Hearing: Date: August 8, 2008  
Location: Carpinteria, CA
  - (c) Adoption Hearing: Date: September 5, 2008  
Location: Truckee, CA
- III. Description of Regulatory Action:
  - (a) Statement of Specific Purpose of Regulation Change and Factual Basis for Determining that Regulation Change is Reasonably Necessary:

Under existing law, herring and herring eggs may be taken for commercial purposes only under a revocable permit, subject to such regulations as the Fish and Game Commission (Commission) shall prescribe. Current regulations specify: permittee qualifications; permit application procedures and requirements; permit limitations; permit areas; vessel identification requirements; fishing quotas; seasons; gear restrictions; quotas; landing and monitoring requirements; permit categories and conditions; royalty fees; permit performance deposit requirements; fishing and harvesting restrictions; processing requirements and permit suspension conditions and procedures.

The proposed regulations would establish the fishing quota and season dates and times that fishing operations are allowed for the 2008-09 season in San Francisco Bay and season dates and times for fishing operations for the 2008-09 season in Tomales Bay.

Management recommendations to improve or provide for the efficient harvest and orderly conduct of the herring fishery are solicited annually from the Director's Herring Advisory Committee (DHAC), and from interested fishermen and individuals at public meetings. The proposed amendments to Sections 163 and 164, Title 14, California Code of Regulations (CCR), reflect,

in part, Department of Fish and Game (Department) recommendations presented to the DHAC and recommendations from the DHAC. The Department prepared a Supplemental Environmental Document, pursuant to the requirements of the California Environmental Quality Act. This Environmental Document will be released for public review in mid-June 2008. Certification of the Environmental Document is scheduled to occur at the September 5, 2008 Commission meeting in Truckee, California.

## **BACKGROUND**

Pacific herring fisheries occur in four primary spawning areas of California, in San Francisco Bay, Tomales Bay, Humboldt Bay, and Crescent City Harbor. The Department manages these populations as separate stocks. The commercial herring fisheries on these stocks are closely regulated through a catch quota system to provide for adequate protection and utilization of the herring resource. The Department conducts annual assessments of the size of the spawning populations of herring (spawning biomass) in San Francisco Bay. In addition to the assessment of spawning biomass, the Department examines the age structure of the spawning population, growth and general condition, biological aspects of the catch, and environmental conditions. These data serve as the basis for establishing fishing quotas for the next season.

## **FISHING QUOTAS**

Annual fishing quotas are intended to provide for a sustainable fishery and have been limited to a total commercial catch of not exceeding 20 percent (harvest percentage) of the spawning biomass, based upon the results of a modeling exercise several years ago that assumed stable environmental and biological conditions. Quotas are the principal regulatory tool to establish adequate protection for the herring resource and provide for the long-term yield of the fishery. Each year, the Department recommends a harvest percentage that is not determined by a fixed mathematical formula; rather, the recommendation is based upon the modeling results and takes into account additional data collected each season, such as oceanic conditions, growth rates of herring, strength of individual year-classes, and predicted size of incoming year-classes (*i.e.*, recruitment). In response to poor recruitment, or indication of population stress, and/or unfavorable oceanographic conditions, harvest percentages in previous years have been set below 15 percent. For example, the 2006-07 spawning biomass was a record low; therefore, a conservative harvest percentage of 10 percent was proposed for the 2007-08 season.

### **San Francisco Bay**

The 2007-08 season spawning biomass estimate for San Francisco Bay was 11,183 tons, well below the previous 29-season average of 52,285 tons, but a two percent increase over last season's estimate of 10,935

tons. Despite cool oceanic conditions in 2007, the San Francisco Bay spawning population showed only minor improvement.

Since the 2002-03 season, the Department has expressed concern regarding the health, specifically the age structure, of the San Francisco Bay herring population. Additionally, since the 1997-98 El Niño, the estimated number of age four and older herring which had historically supported the gill net fishery has declined in the population and the proportion of age three herring has increased in the catch. Preliminary age data for the past season continue to show that age four and older herring have declined in the spawning population while the percent of age two and three have increased. One of the Department's herring fishery management goals is to allow the harvest of age four and older herring and to avoid the harvest of two- and three-year old fish, many of which are first-time spawners. Preliminary commercial age data showed an 11 percent increase in the percentage of age three herring taken by the gill net fishery compared to last season. The Department remains concerned with a coast-wide trend in decreasing mean length at age, and a truncation in age-classes reported for herring fisheries along the eastern Pacific coast since the 1997-98 El Niño.

San Francisco Bay environmental conditions have changed over the past two seasons which may hinder spawning success. Subtidal vegetation within the major spawning areas of San Francisco Bay declined greatly over the past two seasons. The decline in subtidal vegetation reduced the available natural spawning substrate for herring in the bay, which resulted in greater utilization of intertidal areas and pier pilings as spawning substrates this season. These areas are subject to greater bird predation, egg loss due to wave action, and desiccation of eggs. Other changes in environmental conditions of the bay are related to decreased freshwater inflow into San Francisco Bay. Low bay salinity is necessary for spawning success. Rainfall increases the freshwater inflow which normally lowers bay salinities; however, dry winters have occurred in two consecutive seasons.

On November 7, 2007, the container ship, Cosco Busan spilled an estimated 58,000 gallons of bunker fuel (IFO 380) into San Francisco Bay. Due to the timing of the oil spill, herring resources were potentially impacted. Since the spill occurred prior to the majority of spawning schools entering the bay, the most likely impact would be to spawning habitat and egg and larval development in contaminated areas. Previous studies, conducted after the Exxon Valdez oil spill, on herring egg and larval development exposed to weathered oil and polycyclic aromatic hydrocarbons (PAH) indicated impacts range from increased egg mortality to larval developmental abnormalities resulting in poor survival. Both of these potential impacts can lead to reduced year class strength. A Natural Resources Damage Assessment (NRDA) team conducted a study of egg and larval development in oiled and non-oiled areas in the bay; however,

the results have yet to be released. A review of existing literature indicates that potential impacts of oil exposure on herring may negatively affect year class strength, but similarly, other environmental conditions could negatively affect year class strength. Pacific herring have an evolved reproductive strategy to withstand predation, environmental uncertainties, and random events. However, the current population remains at low levels and significant increases in mortality at any life history stage can delay stock rebuilding. The findings of the NRDA report will assist in determining the immediate and long-term impacts to herring resources and assist in amending San Francisco Bay herring management strategies, if warranted.

### San Francisco Bay Quota

The Department is providing the Commission the option to consider a quota within the range of 0 to 10 percent of the 2007-08 spawning biomass estimate of 11,183 tons. **The Department recommends a quota for the 2008-09 season of 1,118 tons, which is 10 percent of the 2007-08 spawning biomass.** The Department is concerned with the status of the herring population in San Francisco Bay; however, we believe that our recommendation represents a sustainable level of catch under current conditions. This is the second consecutive year with a near record low spawning biomass for San Francisco Bay and there may be future negative effects to the herring population from the Cosco Busan oil spill. Results from the NRDA study on oil impacts to herring resources have not yet been released. If results from this study show significant negative impacts to herring eggs and larvae in areas exposed to oil, the Department may need to revise the quota recommendation.

The number of boats fishing the San Francisco herring fishery has decreased substantially in the last several years. Since the 2004-05 season, the number of boats actively fishing has decreased from over forty to twenty-one boats during the 2007-08 season. Given the decline in active participants in the fishery and the possibility for improved environmental conditions for herring, the Department believes a 1,118 ton quota provides a small fishery for the permittees while maintaining conservation safeguards against overexploitation.

Within the overall quota for San Francisco Bay, separate quotas are established for each gill net platoon (i.e., December "DH", Odd, and Even fishing groups). The overall quota is divided among the three platoons in proportion to the number of permits assigned to each platoon. Slight annual adjustments in the quota assignments for each fishing group are needed to account for attrition of permittees and the use of herring permits in the herring eggs on kelp (HEOK) fishery. HEOK fishing occurs only in San Francisco Bay and the fishery is regulated under Section 164, Title 14, CCR. Individual HEOK quotas depend on the total herring fishery quota for San Francisco Bay established by the Fish and Game Commission under Section 163, Title 14,

CCR. In 1994, the Commission provided HEOK permittees possessing "CH" permits with a HEOK quota equal to approximately 0.79 percent of the overall quota. **The Department is not recommending any change to this historical allocation.**

### **Tomales Bay**

**The Department is not recommending any change to the regulations for the Tomales Bay fishery quota.** Proposed changes to the season dates are outlined under "Season Dates and Fishing Times" below.

### **Humboldt Bay and Crescent City Harbor**

**The Department is not recommending any change to the regulations for the Humboldt Bay or Crescent City Harbor herring fisheries including quotas and season dates.**

### **SEASON DATES AND FISHING TIMES**

The consensus of the DHAC, which met on April 17, 2008, was to recommend that the dates of the roe herring fisheries in San Francisco Bay be set from 5:00 p.m. on Monday, December 1, 2008, until noon on Friday, December 19, 2008 ("DH" gill net platoon only). Recommended dates for the odd and even platoons are from 5:00 p.m. on Sunday, January 4, 2009, until noon on Friday, March 20, 2009. The consensus of the Tomales Bay DHAC representatives for season dates was to recommend opening at noon on Friday, December 26, 2008, until noon on Friday, February 27, 2009. **The Department is recommending that the Commission adopt the DHAC recommended changes to the season dates and fishing times.**

### **CHANGES FOR CLARITY AND CONSISTENCY**

**The Department is recommending corrections to the revision date on Form FG 1377 in subsection 163(b)(1) and Form FG 1406 in subsection 164(h)(1) to coincide with the 2008-09 season application.**

- (b) Authority and Reference Sections from the Fish and Game Code for Regulation:

Authority: Sections 1050, 5510, 8550, 8552.1, 8553 and 8555, Fish and Game Code.

Reference: Sections 713, 8043, 8550, 8552, 8552.6, 8553, 8554, 8555, 8556, 8557 and 8559, Fish and Game Code.

- (c) Specific Technology or Equipment Required by Regulatory Change:  
None.
- (d) Identification of Reports or Documents Supporting Regulation Change:
  - (1) Informational Summary Packet for San Francisco Bay herring fishery
  - (2) Meeting Notes, Director's Herring Advisory Committee Meeting, April 17, 2008, Sausalito, California.
- (e) Public Discussions of Proposed Regulations Prior to Notice Publication:
  - (1) Herring Town Hall Meeting, February 8, 2008, Sausalito, California.
  - (2) Director's Herring Advisory Committee Meeting, April 17, 2008, Sausalito, California.

IV. Description of Reasonable Alternatives to Regulatory Action:

- (a) Alternatives to Regulation Change: No alternatives were identified.
- (b) No Change Alternative:

A no change alternative would provide a quota for the 2008-09 fishing season of 1,094 tons.

- (c) Consideration of Alternatives:

The following Alternative was considered but rejected by the Department of Fish and Game:

**SIMPLIFYING THE PACIFIC HERRING REGULATIONS**

The existing Pacific herring regulations are cumbersome, complex and difficult to manage. The Department, as well as the DHAC, is very interested in simplifying the Pacific herring regulations. The Director of Fish and Game has instructed Department staff to work closely with DHAC members and other interested parties to develop a comprehensive suite of herring regulatory reform proposals to present to the Commission by June 2009. In order for the Department and fishing industry representatives to fully examine all regulatory reform proposals and be able to put these

proposals into one rulemaking package, the Department is not considering this alternate regulatory action at this time.

- V. Mitigation Measures Required by Regulatory Action:  
See Draft Supplemental Environmental Document – Pacific Herring Commercial Fishing Regulations.

VI. Impact of Regulatory Action

The potential for significant statewide adverse economic impacts that might result from the proposed regulatory action has been assessed, and the following initial determinations relative to the required statutory categories have been made:

- (a) Significant Statewide Adverse Economic Impact Directly Affecting Businesses, Including the Ability of California Businesses to Compete with Businesses in Other States:

The California commercial herring fishery takes place in four areas; San Francisco Bay, Tomales Bay, Humboldt Bay, and Crescent City Harbor. However, the greatest economic benefit is derived from herring activities in San Francisco Bay, which typically generates about 90 percent of the total average annual revenue for this California fishery. In real dollars, San Francisco Bay herring revenue has averaged about \$2.7 million out of \$3.0 million for the State, since 2004. All the herring fishermen and herring processing plants are small businesses as defined under Government Code Section 11342.610. Since the proposed quota of 10 percent spawning biomass will result in a 2.1 percent increase in allowable harvest compared to last season, there are no adverse economic impacts associated with the proposed regulation.

- (b) Impact on the Creation or Elimination of Jobs Within the State, the Creation of New Businesses or the Elimination of Existing Businesses, or the Expansion of Businesses in California:

None.

- (c) Cost Impacts on a Representative Private Person or Business:

The agency is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action. There are no new fees or reporting requirements stipulated under the proposed regulations.

- (d) Costs or Savings to State Agencies or Costs/Savings in Federal Funding to the State:

None.

- (e) Nondiscretionary Costs/Savings to Local Agencies:

None.

- (f) Programs mandated on Local Agencies or School Districts:

None.

- (g) Costs Imposed on Any Local Agency or School District that is Required to be Reimbursed Under Part 7 (commencing with Section 17500) of Division 4:

None.

- (h) Effect on Housing Costs:

None.



## INFORMATIVE DIGEST\POLICY STATEMENT OVERVIEW

Under existing law, herring may be taken for commercial purposes only under a revocable permit, subject to such regulations as the Fish and Game Commission shall prescribe. Current regulations specify: permittee qualifications; permit application procedures and requirements; permit limitations; permit areas; vessel identification requirements; fishing quotas; seasons; gear restrictions; quotas; and landing and monitoring requirements.

The proposed regulations would establish the fishing quota and season dates and times that fishing operations are allowed for the 2008-09 season in San Francisco Bay and season dates and times for fishing operations for the 2008-09 season in Tomales Bay.

The following is a summary of the proposed changes in Sections 163, and 164, Title 14, CCR:

- The proposed regulations would establish the fishing quota for San Francisco Bay for the 2008-09 herring fishing season, based on the most recent biomass assessments of spawning populations of herring. The Department is providing the Commission the option to consider a quota within the range of 0 to 10 percent of the 2007-08 spawning biomass estimate of 11,183 tons. The Department is recommending the San Francisco Bay quota be set at 1,118 tons, which represents 10 percent of the 2007-08 spawning biomass estimate. If the Commission were to adopt this option, a 1,118 ton quota would result in a 1.9 ton individual quota for a "CH" gillnet permittee and a 1.1 ton individual quota for a non-"CH" gillnet permittee participating in the HEOK fishery.
- There are no quota changes proposed for Crescent City Harbor, Humboldt or Tomales bays for the 2008-09 herring season.
- Proposed regulations would allow fishing in San Francisco Bay from 5:00 p.m. on Monday, December 1, 2008, until noon on Friday, December 19, 2008 ("DH" gill net platoon only). Recommended dates for the odd and even platoons are from 5:00 p.m. on Sunday, January 4, 2009, until noon on Friday, March 20, 2009.
- The proposed regulations would set the dates of the roe herring fishery in Tomales Bay from noon on Friday, December 26, 2008, until noon on Friday, February 27, 2009.

Following are minor changes proposed to clarify and simplify the regulations:

- The proposed regulations would correct the Limited Entry Pacific Herring permit application number revision date in subsection 163(b)(1) and Herring Eggs on Kelp permit application number revision date in subsection 164 (h)(1) to coincide with the 2008-09 season application.

